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Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **1** of **10**

### Complete if Known

Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	Cech, Thomas J.
Group Art Unit	To Be Assigned
Examiner Name	To Be Assigned
Attorney Docket Number	015389-002640US

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10/04/02  
10/11/02

### U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
GK	A	08/751,189		Harrington, et al.	11/15/96	
	B	60/038,750		Counter, et al.	02/20/97	
	C	3,817,837		Tanenholtz et al.	08-18-74	
	D	3,850,752		Schuurs et al.	11-26-74	
	E	3,939,350		Kronick et al.	02-17-76	
	F	3,996,345		Ullman et al.	12-01-76	
	G	4,275,149		Litman et al.	08-23-81	
	H	4,277,437		Maggio	07-07-81	
	I	4,366,241		Tom et al.	12-28-82	
	J	4,683,195		Mullis et al.	07-28-87	
	K	4,683,202		Mullis	07-28-87	
	L	4,816,567		Cabilly et al.	03-28-89	
	M	4,965,188		Mullis et al.	10-23-90	
	N	5,489,508		West et al.	02-08-96	
	O	5,583,016		Villeponteau et al.	12-10-96	
	P	5,747,317		Cao	05-05-98	
	Q	5,770,422		Collins	06-23-98	
	R	6,093,809		Cech, et al.	07/25/00	
	S	6,258,535	B1	Villeponteau et al.	07/10/01	
	T	6,261,556	B1	Weinrich et al.	07/17/01	
	U	6,261,836	B1	Cech et al.	07/17/01	

### FOREIGN PATENT DOCUMENTS

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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
M	V	JP	09154575-A			06-17-97		
	W	PCT	WO 84/03564			09-13-84		
	X	PCT	WO 95/13382			05-18-95		
	Y	PCT	WO 98/01835			01-25-98		
	Z	PCT	WO 98/12811			05-02-98		
	AA	PCT	WO 98/19580			08-27-98		

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<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet **2** of **10**

### Complete if Known

Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	Cech, Thomas J.
Group Art Unit	To Be Assigned
Examiner Name	To Be Assigned
Attorney Docket Number	015389-002640US

### FOREIGN PATENT DOCUMENTS

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		Office <sup>2</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
SJK	AB	PCT	WO 96/40868			12-19-96		
	AC	PCT	WO 98/01542			01-15-98		
	AD	PCT	WO 98/01543			01-15-98		
	AE	PCT	WO 98/07838			03-05-98		
	AF	PCT	WO 98/08938			02-26-98		
	AG	PCT	WO 98/21343			05-22-98		
	AH	PCT	WO 98/37181			08-27-98		
	AI	PCT	WO 98/45450			10-15-98		
	AJ	PCT	WO98/59040			12/30/98		
	AK	PCT	WO99/01560			01/14/99		

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet **3** of **10**

## **Complete if Known**

Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	Cech, Thomas J.
Group Art Unit	To Be Assigned
Examiner Name	To Be Assigned
Attorney Docket Number	015389-002640US

## **OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-Issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
gm	AL	1994 Genome Issue of <i>Science</i> (265:1981f)	
↓	AM	Anderson and Young, "Quantitative Filter Hybridization" in <i>Nucleic Acid Hybridization</i> pp73-111 (1985)	
g	AN	<del>Austin et al., Current Protocols in Molecular Biology, 1991 Wiley &amp; Sons, New York NY (1989)</del>	
gm	AO	Autexier et al., "Reconstitution of human telomerase activity and identification of a minimal functional region of the human telomerase RNA," (1996) <i>EMBO J</i> , 15:5928	
↓	AP	Autexier and Greider, "Functional reconstitution of wild-type and mutant <i>Tetrahymena</i> telomerase," (1994) <i>Genes Develop.</i> , 8:583	
g	AQ	<del>Berg and Timmer, Guide to Molecular Biology Techniques, Meth. Enzymol., vol. 152, Academic Press, San Diego</del>	
gm	AR	Blessman et al., "Addition of Telomere-Associated HeT DNA Sequences "Heals" Broken Chromosome Ends in <i>Drosophila</i> ," (1990) <i>Cell</i> , 61:663	
	AS	Bitter et al., "Expression and secretion vectors for yeast," <i>Meth Enzymol.</i> , (1987) 153:516	
	AT	Blackburn and Chlou, "Non-nucleosomal packaging of a tandemly repeated DNA sequence at termini of extrachromosomal DNA coding for rRNA in <i>Tetrahymena</i> ," (1981) <i>Proc. Natl. Acad. Sci.</i> , 78:2283	
	AU	Blackburn and Gall, "A tandemly repeated sequence at the termini of the extrachromosomal ribosomal RNA genes in <i>Tetrahymena</i> ," (1978) <i>J. Mol. Biol.</i> , 120:33	
	AV	Blackburn, "Telomerases," (1992) <i>Ann. Rev. Biochem.</i> , 61:113	
	AW	Bodnar et al., "Extension of Life-Span by Introduction of Telomerase into Normal Human Cells," (1998) <i>Science</i> , 279:349	
	AX	Bradford, "A Rapid and Sensitive method for the Quantitation of Microgram Quantities of Protein Utilizing the Principle of Protein-Dye Binding," (1976) <i>Anal. Biochem.</i> , 72:248	
	AY	Braunstein et al., "Transcriptional silencing in yeast is associated with reduced nucleosome acetylation," (1993) <i>Genes Develop.</i> , 7:592	

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\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 10

### Complete if Known

Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	Cech, Thomas J.
Group Art Unit	To Be Assigned
Examiner Name	To Be Assigned
Attorney Docket Number	015389-002640US

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
su	AZ	Calvio <i>et al.</i> , "Identification of hnRNP P2 as TLS/FUS using electrospray mass spectrometry," (1995) <i>RNA</i> , 1:724	
	BA	Caruthers <i>et al.</i> , "New chemical methods for synthesizing polynucleotides," (1980) <i>Nucleic Acids Res. Symp. Ser.</i> , 215-223	
	BB	Chan and Tye, "Organization of DNA sequences and replication origins at yeast telomeres," (1983) <i>Cell</i> , 33:563	
✓	BC	Colbere-Garapin <i>et al.</i> , "A new dominant hybrid selective marker for higher eukaryotic cells," (1981) <i>J. Mol. Biol.</i> , 150:1	
✓	BD	Cole <i>et al.</i> , "The EBV-hybridoma technique and its application to human lung cancer," <i>Monoclonal Antibodies and Cancer Therapy</i> , Alan R. Liss Inc., New York, NY (1985)	
su	BE	Collins <i>et al.</i> , "Purification of Tetrahymena telomerase and cloning of genes encoding the two protein components of the enzyme," (1995) <i>Cell</i> , 81:677	
✓	BF	Conrad <i>et al.</i> , "RAP1 protein interacts with yeast telomeres in vivo: Overproduction alters telomere structure and decreases chromosome stability," (1990) <i>Cell</i> , 63:739	
	BG	Geombis, <i>Dictionary of Biotechnology</i> , Stockton Press, New York, NY (1994)	
su	BH	Cote <i>et al.</i> , "Generation of human monoclonal antibodies reactive with cellular antigens," (1983) <i>Proc. Natl. Acad. Sci.</i> , 80:2026	
	BI	Counter <i>et al.</i> , "The catalytic subunit of yeast telomerase," (1997) <i>Proc. Natl. Acad. Sci.</i> , 94:9202	
✓	BJ	Counter <i>et al.</i> , (1994) <i>Proc. Natl. Acad. Sci.</i> , 91:2900	
✓	BK	Creighton, <i>Proteins: Structures and Molecular Principles</i> , W.H. Freeman and Co, New York, NY (1983)	
✓	BL	Dieffenbach and Dveksler, <i>PCR Primer, a Laboratory Manual</i> , Cold Spring Harbor Press, Plainview NY (1995)	

Examiner Signature	<u>[Signature]</u>	Date Considered	<u>11/29/04</u>
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 5 of 10

### Complete if Known

Application Number	To Be Assigned
Filing Date	Herewith
First Named Inventor	Cech, Thomas J.
Group Art Unit	To Be Assigned
Examiner Name	To Be Assigned
Attorney Docket Number	015389-002640US

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
<i>Gu</i>	BM	Duplaa <i>et al.</i> , "Quantitative analysis of polymerase chain reaction products using biotinylated dUTP incorporation," (1993) <i>Anal. Biochem.</i> , 212:229	
	BN	Fang <i>et al.</i> , "Oxytricha telomere-binding protein: separable DNA-binding and dimerization domains of the $\alpha$ -subunit," <i>Genes Develop.</i> 7:870 (1993) and Gray <i>et al.</i> , (1991) <i>Cell</i> 67:807	
	BO	Feng <i>et al.</i> , "The RNA Component of Human Telomerase," (1995) <i>Science</i> , 269:1236	
	BP	GenBank Accession No. AA281286	
	BQ	Genbank accession no. AA299878	
	BR	Genbank accession no. AA311750	
	BS	Gilley <i>et al.</i> , "Altering specific telomerase RNA template residues affects active site function," (1995) <i>Genes Develop.</i> , 9:2214	
	BT	Gottschling and Cech, "Chromatin Structure of the Molecular Ends of Oxytricha Mononuclear DNA: Phased Nucleosomes and a Telomeric Complex," (1984) <i>Cell</i> , 38:501	
	BU	Gottschling and Zakian, "Telomere proteins: specific recognition and protection of the natural termini of Oxytricha macronuclear DNA," (1986) <i>Cell</i> 47:195	
	BV	Grant <i>et al.</i> , <i>Meth Enzymol.</i> , (1987) 153:516-544	
	BW	Greenwood <i>et al.</i> , "Phylogenetic relationships within the class oligohymenophorea, phylum ciliophora, inferred from the complete small subunit rRNA gene sequences of <i>Colpidium campyllum</i> , <i>Glaucoma chattoni</i> , and <i>Opisthonecta henneguyi</i> ," (1991) <i>J. Mol. Evol.</i> , 3:183	
	BX	Greider and Blackburn, "A telomeric sequence in the RNA of Tetrahymena telomerase required for telomere repeat synthesis," (1989) <i>Nature</i> , 337:331	
	BY	Greider and Blackburn, "Identification of a specific telomere terminal transferase activity in Tetrahymena extracts," (1985) <i>Cell</i> , 43:405	

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GM	BZ	Greider, "Telomerase is processive," (1991) <i>Mol. Cell. Biol.</i> , 11:4572	
	CA	Greider, "Telomere Length Regulation," (1996) <i>Ann. Rev. Biochem.</i> , 65:337	
	CB	Hampton <i>et al.</i> , <i>Serological Methods a Laboratory Manual</i> , APS Press, St Paul MN (1990)	
	CC	Harrington <i>et al.</i> , "A Mammalian Telomerase-Associated Protein," (1997) <i>Science</i> , 275:973	
	CD	Harrington <i>et al.</i> , "Human telomerase contains evolutionarily conserved catalytic and structural subunits," (1997) <i>Genes Dev.</i> , 11:3109	
	CE	Hartman and Mulligan, "Two dominant-acting selectable markers for gene transfer studies in mammalian cells," (1988) <i>Proc. Natl. Acad. Sci.</i> , 85:8047	
	CF	Henderson and Blackburn, "An overhanging 3' terminus is a conserved feature of telomeres," (1989) <i>Mol Cell. Biol.</i> , 9:345	
	CG	Horn <i>et al.</i> , "Synthesis of oligonucleotides on cellulose. Part II: design and synthetic strategy to the synthesis of 22 oligodeoxynucleotides coding for gastric inhibitory polypeptide (GIP)," (1980) <i>Nucleic Acids Res. Symp. Ser.</i> , 225-232	
	CH	Hudson <i>et al.</i> , "An STS-based map of the human genome," (1995) <i>Science</i> , 270:1945	
	CI	Huse <i>et al.</i> , "Generation of a large combinatorial library of the immunoglobulin repertoire in phage lambda," (1989) <i>Science</i> , 246:1275	
	CJ	Johnson <i>et al.</i> , (1991) <i>Mol. Cell Biol.</i> 11:1	
	CK	Kilian <i>et al.</i> , "Isolation of a candidate human telomerase catalytic subunit gene, which reveals complex splicing patterns in different cell types," (1997) <i>Hum. Mol. Genet.</i> , 6:2011	
	CL	Kipling and Cooke, "Hypervariable ultra-long telomeres in mice," (1990) <i>Nature</i> 347:400	
	CM	Klobutcher <i>et al.</i> , "All gene-sized DNA molecules in four species of hypotrichs have the same terminal sequence and an unusual 3' terminus," (1981) <i>Proc. Natl. Acad. Sci.</i> , 78:3015	

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		Group Art Unit	To Be Assigned
		Examiner Name	To Be Assigned
		Attorney Docket Number	015389-002640US
Sheet	7	of	10

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GM	CN	Koehler and Milstein, "Continuous cultures of fused cells secreting antibody of predefined specificity," (1975) <i>Nature</i> 256:495	
	CO	Kosbor <i>et al.</i> , "The production of monoclonal antibodies from human lymphocytes," (1983) <i>Immunol. Today</i> 4:72	
	CP	Lamond and Sproat, (1994) "Isolation and Characterization of Ribonucleoprotein Complexes," pp103-140	
	CQ	Lamond <i>et al.</i> , "Probing the structure and function of U2 snRNP with antisense oligonucleotides made of 2'-OMe RNA," (1989) <i>Cell</i> , 58:383	
	CR	Lendvay <i>et al.</i> , "Senescence mutants of <i>Saccharomyces cerevisiae</i> with a defect in telomere replication identify three additional EST genes," (1996) <i>Genetics</i> , 144	
	CS	Lingner <i>et al.</i> , "Purification of telomerase from <i>Euplotes aediculatus</i> : requirement of a primer 3' overhang," (1996) <i>Proc. Natl. Acad. Sci.</i> , 93:10712	
	CT	Lingner <i>et al.</i> , "Reverse transcriptase motifs in the catalytic subunit of telomerase," (1997) <i>Science</i> , 276:561	
	CU	Lingner <i>et al.</i> , "Telomerase RNAs of different ciliates have a common secondary structure and a permuted template," (1994) <i>Genes Develop.</i> , 8:1984	
	CV	Lingner <i>et al.</i> , "Telomerase and DNA End Replication: No Longer a Lagging Strand Problem?," (1995) <i>Science</i> 269:1533	
	CW	Lowy <i>et al.</i> , "Isolation of transforming DNA: Cloning the hamster aprt gene," (1980) <i>Cell</i> , 22:817	
	CX	Lustig and Petes, Identification of yeast mutants with altered telomere structure," (1988) <i>Proc. Natl. Acad. Sci.</i> , 85:1398	
	CY	Maddox <i>et al.</i> , "Elevated serum levels in human pregnancy of a molecule immunochemically similar to eosinophil granule major basic protein," (1983) <i>J. Exp. Med.</i> , 158:1211	
	CZ	Makarov <i>et al.</i> , "Nucleosomal Organization of Telomere-Specific Chromatin in Rat," (1993) <i>Cell</i> , 73:775	
	DA	McEachern and Blackburn, "runaway telomere elongation caused by telomerase RNA gene mutation," (1995) <i>Nature</i> , 376:403	
Examiner Signature	Date Considered		11/29/04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary).		<b>Complete if Known</b>	
		Application Number	To Be Assigned
		Filing Date	Herewith
		First Named Inventor	Cech, Thomas J.
		Group Art Unit	To Be Assigned
		Examiner Name	To Be Assigned
Sheet 8 of 10	Attorney Docket Number	015389-002640US	

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
Suy	DB	Melby et al., "Quantitative measurement of human cytokine gene expression by polymerase chain reaction," (1993) <i>J. Immunol. Meth.</i> , 159:235	
	DC	Memfield, "Solid phase peptide synthesis. I. The synthesis of a tetrapeptide," (1963) <i>J. Am. Chem. Soc.</i> , 85:2149	
✓	DD	Meyerson et al., "hEST2, the Putative Human Telomerase Catalytic Subunit Gene, Is Up-Regulated in Tumor Cells and during Immortalization," (1997) <i>Cell</i> , 90:785	
✓	DE	Murray, <i>In McGraw Hill Yearbook of Science and Technology</i> , (1992) McGraw Hill/New York NY, pp 191-196	
Su	DF	Nakamura et al., "Telomerase Catalytic Subunit Homologs from Fission Yeast and Human," (1997) <i>Science</i> , 277:955	
	DG	Nakayama et al., "TLP1: A Gene Encoding a Protein Component of Mammalian Telomerase Is a Novel Member of WD Repeats Family," (1997) <i>Cell</i> , 88:875	
	DH	Nielsen et al., (1993) "Peptide nucleic acids (PNAs): Potential antisense and anti-gene agents," <i>Anticancer Drug Des.</i> , 8:53	
	DI	Oka et al., "Inverted terminal repeat sequence in the macronuclear DNA of <i>Stylonychia pustulata</i> ," (1980) <i>Gene</i> , 10:301	
	DJ	Olovnikov, "A theory of marginotomy: The incomplete copying of template margin in enzymic synthesis of polynucleotides and biological significance of the phenomenon," (1973) <i>J. Theor. Biol.</i> , 41:181	
	DK	Orlandi et al., "Cloning immunoglobulin variable domains for expression by the polymerase chain reaction," (1989) <i>Proc. Natl. Acad. Sci.</i> , 86:3833	
	DL	Prescott, "The DNA of ciliated protozoa," (1994) <i>Microbiol. Rev.</i> , 58:233	
	DM	Prioe, (1993) <i>Blood Rev.</i> , 7:127	
	DN	Rhodes et al., "Transformation of maize by electroporation of embryos," (1995) <i>Meth. Mol. Biol.</i> , 55:121	
✓	DO	Roberge et al., "A strategy for a convergent synthesis of N-linked glycopeptides on a solid support," (1995) <i>Science</i> , 269:202	

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	Application Number	To Be Assigned	
	Filing Date	Herewith	
	First Named Inventor	Cech, Thomas J.	
	Group Art Unit	To Be Assigned	
	Examiner Name	To Be Assigned	
Sheet	9	of	10
	Attorney Docket Number	015389-002640US	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
<div style="font-size: 2em; margin-bottom: 10px;">S</div> <div style="font-size: 2em; margin-bottom: 10px;">D</div> <div style="font-size: 2em; margin-bottom: 10px;">S</div> <div style="font-size: 2em; margin-bottom: 10px;">D</div> <div style="font-size: 2em; margin-bottom: 10px;">T</div> <div style="font-size: 2em; margin-bottom: 10px;">U</div> <div style="font-size: 2em; margin-bottom: 10px;">V</div> <div style="font-size: 2em; margin-bottom: 10px;">W</div> <div style="font-size: 2em; margin-bottom: 10px;">X</div> <div style="font-size: 2em; margin-bottom: 10px;">Y</div> <div style="font-size: 2em; margin-bottom: 10px;">Z</div> <div style="font-size: 2em; margin-bottom: 10px;">E</div> <div style="font-size: 2em; margin-bottom: 10px;">A</div> <div style="font-size: 2em; margin-bottom: 10px;">B</div> <div style="font-size: 2em; margin-bottom: 10px;">C</div>	DP	Romero and Blackburn, "A conserved secondary structure for telomerase RNA, " (1991) <i>Cell</i> , 67:343	
	DQ	<del>Sambrook et al., Molecular Cloning, A Laboratory Manual, Cold Spring Harbor Press, Plainview NY (1989)</del> <i>Not Submitted</i>	
	DR	Sandell et al., "Transcription of yeast telomere alleviates telomere position effect without affecting chromosome stability, "(1994) <i>Proc. Natl. Acad. Sci.</i> , 91:12081	
	DS	Sanger et al., "DNA sequencing with chain-terminating inhibitors, " (1977) <i>Proc. Natl. Acad. Sci.</i> , 74:5463	
	DT	Scharf et al., "Heat stress promoters and transcription factors," (1994) <i>Result Probl. Cell Differ.</i> 20:125	
	DU	Shampay and Blackburn, "Generation of telomere-length heterogeneity in <i>Saccharomyces cerevisiae</i> ," (1988) <i>Proc. Natl. Acad. Sci.</i> , 85:634	
	DV	Sheen and Levis, "Transposition of the LINE-like retrotransposon TART to <i>Drosophila</i> chromosome termini," (1994) <i>Proc. Natl. Acad. Sci.</i> , 91:12510	
	DW	Singer and Gottschling, "TLC1: Template RNA Component of <i>Saccharomyces cerevisiae</i> Telomerase," (1994) <i>Science</i> 266:404	
	DX	Startling et al., "Extensive telomere repeat arrays in mouse are hypervariable," (1990) <i>Nucleic Acids Res.</i> , 18:6881	
	DY	Swanton et al., "Arrangement of Coding and Non-coding Sequences in the DNA Molecules Coding for rRNAs in <i>Oxytricha</i> sp.," (1980) <i>Chromosoma</i> 77:203	
	DZ	Tommerup et al., "Unusual chromatin in human telomeres," (1994) <i>Mol. Cell. Biol.</i> , 14:5777	
	EA	Trask, "Fluorescence in situ hybridization: application in cytogenetics and gene mapping," (1991) <i>Trends Genet.</i> , 7:149	
	EB	<del>Verma et al., "Human Chromosomes: A Manual of Basic Techniques," Pergamon Press, New York NY (1988)</del> <i>Not Submitted</i>	
	EC	Watson, "Origin of concatemeric T7 DNA, " (1972) <i>Nature New Biol.</i> , 239:197	

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		Application Number	To Be Assigned
		Filing Date	Herewith
		First Named Inventor	Cech, Thomas J.
		Group Art Unit	To Be Assigned
		Examiner Name	To Be Assigned
Sheet	10	of	10
		Attorney Docket Number	015389-002640US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
S	ED	Weinrich <i>et al.</i> , "Reconstitution of human telomerase with the template RNA component hTR and the catalytic protein subunit hTRT," (1997) <i>Nat. Genet.</i> , 17(4):498	
/	EE	Wellinger <i>et al.</i> , "Origin activation and formation of single-strand TG <sub>1-3</sub> tails occur sequentially in late S phase on a Yeast linear plasmid," (1993) <i>Mol. Cell. Biol.</i> , 13:4057	
/	EF	Wellinger <i>et al.</i> , "Saccharomyces Telomeres Acquire Single-Strand TG <sub>1-3</sub> Tails Late In S Phase," (1993) <i>Cell</i> 72:51	
/	EG	Whitehead Institute/MIT Center for Genome Research, Genetic Map of the Mouse, Database Release 10, April 28, 1995	
/	EH	Wigler <i>et al.</i> , "Transfer of purified herpes virus thymidine kinase gene to cultured mouse cells," (1977) <i>Cell</i> , 11:223	
/	EI	Wigler <i>et al.</i> , "Transformation of mammalian cells with an amplifiable dominant-acting gene," (1980) <i>Proc. Natl. Acad. Sci.</i> , 77:3587	
/	EJ	Winter and Milstein, "Man-made antibodies," (1991) <i>Nature</i> , 349:293	
/	EK	Wright <i>et al.</i> , "Saccharomyces telomeres assume a non-nucleosomal chromatin structure," (1992) <i>Genes Develop.</i> , 6:197	
/	EL	Yu <i>et al.</i> , "In vivo alteration of telomere sequences and senescence caused by mutated Tetrahymena telomerase RNAs," (1990) <i>Nature</i> , 344:126	
/	EM	Zahler and Prescott, "Telomere terminal transferase activity in the hypotrichous ciliate <i>Oxytricha nova</i> and a model for replication of the ends of linear DNA molecules," (1988) <i>Nucleic Acids Res.</i> , 16:6953	
/	EN	Zakian, "Telomeres: Beginning to Understand the End," (1995) <i>Science</i> 270:1601	
/	EO	Zaug <i>et al.</i> , "Catalysis of RNA Cleavage by a Ribozyme Derived from the Group I Intron of Anabaena Pre-tRNA <sup>Leu</sup> ,"	

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1 of 5

**Complete if Known**

Application Number	10/044,692
Filing Date	January 11, 2002
First Named Inventor	Cech
Art Unit	
Examiner Name	
Attorney Docket Number	015389-002640US

**U.S. PATENT DOCUMENTS+**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
See	A1	US-5,597,697		01-28-1997	Diamond	
	A2	US-5,917,025		08-29-1999	Collins	
	A3	US-6,166,178		12-26-2000	Cech et al.	
	A4	US-6,309,867		10-30-2001	Cech et al.	
	A5	US-6,337,200		01-08-2002	Morin	
	A6	US-6,475,789 B1		11-05-2002	Cech et al.	
	A7	US-6,610,839 B1		08-26-2003	Cech et al.	
	A8	US-6,617,110 B1		09-09-2003	Cech et al.	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
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See	B1	GB	2 317 891	A	04-08-1998			<input type="checkbox"/>
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Substitute for form 1449B/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/044,692
		Filing Date	January 11, 2002
		First Named Inventor	Cech
		Art Unit	
		Examiner Name	
Sheet 2 of 5	Attorney Docket Number	015389-002640US	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
SM	C1	ADAMSON, D. et al. "Significant Telomere Shortening in Childhood Leukemia", <i>Cancer Genet. Cytogenet.</i> 1992; pp. 204-206, Vol. 61	<input type="checkbox"/>
	C2	AUTEXIER, CHANTAL, et al., "Telomerase and cancer: revisiting the telomere hypothesis; Trends in Biochemical Sciences, 1996, pp. 387-391, Vol. 10, No. 21.	<input type="checkbox"/>
	C3	AVILION, A., "Characterization and expression of human telomerase," <i>Dissertation Abstracts International</i> , 1996, pp. 5930-B, Vol. 56, No. 11	<input type="checkbox"/>
	C4	BARINGA, MARCIA, "The Telomerase Picture Fills In", <i>Science</i> , April 25, 1997; pp. 528-529, Vol. 276	<input type="checkbox"/>
	C5	CHIU, et al. "Replicative senescence and cell immortality: the role of telomeres and telomerase (44075)", <i>Proc. Soc. Exp. Bio. Med.</i> , 1997, pp. 99-106, Vol. 214.	<input type="checkbox"/>
	C6	CHONG, L. et al. "A Human Telomeric Protein", <i>Science</i> , Dec. 1995, pp. 1663-1667, Vol. 270.	<input type="checkbox"/>
	C7	COLLINS, KATHLEEN, "Structure and function of telomerase", <i>Current Opinion in Cell Biology</i> , 1996, pp. 374-380, Vol. 8	<input type="checkbox"/>
	C8	COUNTER, C. et al. "Telomerase Activity in Normal Leukocytes and in Hematologic Malignancies" <i>Blood</i> ; May 1, 1995; pp. 2315-2320, Vol. 85, No. 9.	<input type="checkbox"/>
	C9	COUNTER, C. et al. "Telomere shortening associated with chromosome instability is arrested in immortal cells which express telomerase activity", <i>The EMBO Journal</i> ; 1992, pp. 1921-1929, Vol. 11; No. 5, Oxford University Press.	<input type="checkbox"/>
	C10	DE LANGE, T. et al. "Structure and Variability of Human Chromosome Ends"; <i>Molecular and Cellular Biology</i> ; February 1990; pp. 518-527, Vol. 10, No. 2.	<input type="checkbox"/>
V	C11	FLAVELL, R. & MATHIAS, R. "Prospects for transforming monocot crop plants", <i>Nature</i> , 12 Jan. 1984, pp. 108-109, Vol. 307.	<input type="checkbox"/>
3	C12	FRESHNEY, <i>Culture of Animal Cells: A Manual Basic Technique</i> , p. 4, Alan R. Liss, Inc. New York, 1992. <del>Not submitted</del>	<input type="checkbox"/>
SM	C13	Genbank Accession No. A46242; September 21, 1993	<input type="checkbox"/>
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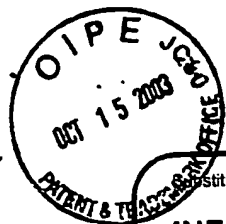
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		Application Number	10/044,692
		Filing Date	January 11, 2002
		First Named Inventor	Cech
		Art Unit	
		Examiner Name	
Sheet 3 of 5	Attorney Docket Number	015389-002640US	

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SC	C17	Genbank Accession No. S53396; May 5, 1995	<input type="checkbox"/>
	C18	GenBank Accession No. U95964; May 5, 1997	<input type="checkbox"/>
	C19	GenBank Accession No. W70315; June 19, 1996	<input type="checkbox"/>
	C20	GLASER, P. et al. "Bacillus subtilis genome project: cloning and sequencing of the 97 kb region from 325' to 333'" <i>Molecular Microbiology</i> , 1993, pp. 371-384, Vol. 10, No. 2.	<input type="checkbox"/>
	C21	GOODMAN, R. et al. "Gene Transfer in Crop Improvement", <i>Science</i> , 3 April 1997, pp. 48-54, Vol. 236.	<input type="checkbox"/>
	C22	GREIDER, C. "Telomeres, Telomerase and Senescence"; <i>BioEssays</i> ; 1990; pp. 363-369, Vol. 12, No. 8.	<input type="checkbox"/>
	C23	HARLEY, C. "Telomere loss: Mitotic clock or genetic time bomb?" <i>Mutation Research</i> ; 1991; pp. 271-282, Vol. 256, Elsevier Science Publishers.	<input type="checkbox"/>
	C24	HARLEY, C. & VILLEPONTEAU, B. "Telomeres and telomerase in aging and cancer" <i>Current Opinion in Genetics and Development</i> ; 1995, pp. 249-255, Vol. 5.	<input type="checkbox"/>
	C25	HARLEY, C. et al. "Telomeres shorten during ageing of human fibroblasts", <i>Nature</i> , 31 May 1990; pp. 458-460, Vol. 345.	<input type="checkbox"/>
	C26	HASTIE, N. et al. "Telomere reduction in human colorectal carcinoma and with ageing", <i>Nature</i> , 30 August 1990, pp. 866-868, Vol. 346.	<input type="checkbox"/>
	C27	HEALY, K. C. "Telomere dynamics and telomerase activation in tumor progression: prospects for prognosis and therapy" <i>Oncol. Res.</i> , 1995, pp. 121-130, Vol. 7	<input type="checkbox"/>
	C28	HENDERSON, C. Cancer genetics gene regulates telomerase resulting in death of cancer cells; <i>Gene Therapy Weekly</i> , 11 September 1995.	<input type="checkbox"/>
	C29	HIYAMA, E. et al. "Correlating telomerase activity levels with human neuroblastoma outcomes"; <i>Nature Medicine</i> ; 3 March 1995; pp. 249-255, Vol. 1, No. 3.	<input type="checkbox"/>
	C30	HOLTZMANN, K. et al. "Telomeric Associations and Loss of Telomeric DNA Repeats in Renal Tumors", <i>Genes, Chromosomes &amp; Cancer</i> , 1993, pp. 178-181, Vol. 6.	<input type="checkbox"/>
	C31	JÄHNE, A. et al. "Genetic Engineering of Cereal Crop Plants: A Review", <i>Euphytica</i> , 1995, pp. 35-44, Vol. 85, Kluwer Academic Publishers, Netherlands.	<input type="checkbox"/>
	C32	JOLLIFFE, L.K. "Humanized antibodies: enhancing therapeutic utility through antibody engineering", <i>Int. Rev. Immunol.</i> , 1993, pp. 241-250, Vol. 10	<input type="checkbox"/>
	C33	KIM, N. et al. "Specific Association of Human Telomerase Activity with Immortal Cells and Cancer", <i>Science</i> , 23 December 1994, pp. 2011-2014, Vol. 266.	<input type="checkbox"/>

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PTO/SB/08B (08-03)

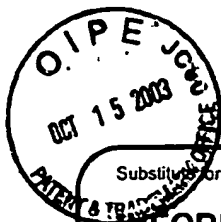
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>	
		Application Number	10/044,692
		Filing Date	January 11, 2002
		First Named Inventor	Cech
		Art Unit	
		Examiner Name	
Sheet 4 of 5	Attorney Docket Number	015389-002640US	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
SAL	C34	KLINGELHUTZ, A. et al. "Restoration of Telomeres in Human Papillomavirus- Immortalized Human Anogenital Epithelial Cells"; <i>Molecular and Cellular Biology</i> ; Feb. 1994, pp. 961-969, Vol. 14, No. 2.	<input type="checkbox"/>
	C35	LEWIS, A. & CROWE, J.S. "Generation of humanized monoclonal antibodies by 'best fit' framework selection and recombinant polymerase chain reaction", <i>Year Immunol.</i> , 1993, pp. 110-118, Vol. 7	<input type="checkbox"/>
	C36	Linking telomerase and tumors; <i>Genesis Report- Dx</i> ; 1995; Vol. 4, No. 6; Publisher Genesis Group Associates.	<input type="checkbox"/>
	C37	LUNDBLAD, V. & BLACKBURN, E., Letter to the Editor entitled, "RNA-Dependent Polymerase Motifs in EST1: Tentative Identification of a Protein Component of an Essential Yeast Telomerase", <i>Cell</i> , 23 Feb. 1990, pp. 529-530, Vol. 60.	<input type="checkbox"/>
	C38	LUSTIG, ARTHUR J., "The identification of telomerase subunits: catalysing telomere research", <i>Trends in Cell Biology</i> ; August 1997, pp. 299-302, Vol. 7.	<input type="checkbox"/>
	C39	MALICKI, J. et al. "A human <i>HOX4B</i> regulatory element provides head-specific expression in <i>Drosophila</i> embryos", <i>Nature</i> , 23 July 1992, pp. 345-357, Vol. 358.	<input type="checkbox"/>
	C40	NAKAYAMA, J. et al. "Cloning of a Candidate cDNA Encoding a Proteinaceous Component of Mammalian Telomerase", <i>Molecular Biology Cell Abstracts Supp.</i> 7, 1996, p. 875-884, 286a Section 1664.	<input type="checkbox"/>
	C41	NATARAJAN et al. "Major histocompatibility complex determinants select T-cell receptor alpha chain variable region dominance in a peptide-specific response." <i>Proc. Natl. Acad. Sci.</i> , Oct 1992, pp. 8874-8878, Vol. 19.	<input type="checkbox"/>
	C42	PASZKOWSKI, JERZY et al. "Direct gene transfer to plants," <i>The EMBO Journal</i> , 1984, pp. 2717-2722, Vol. 3, No. 12.	
	C43	POTRYKUS, I. et al. "Direct gene transfer to cells of a graminaceous monocot", <i>Mol. Gen. Genet.</i> , 1985, pp. 183-188, Vol. 199.	<input type="checkbox"/>
	C44	RAYMOND, E., et al.; Agents that target telomerase and telomeres; <i>Curr. Opin. Biotechnol.</i> ; 1996; 7:583-91	<input type="checkbox"/>
	C45	RHYU, M.S. "Telomeres, telomerase, and immortality"; <i>J. Natl. Cancer Inst.</i> ; 21 June 1995; pp. 884-894, Vol. 87, No. 12.	<input type="checkbox"/>
	C46	SCHENA et al. "Parallel human genome analysis: Microarray-based expression monitoring of 1000 genes", <i>Proc. Natl. Acad. Sci.</i> , Oct. 1996, pp. 10614-10619, Vol. 93, USA.	<input type="checkbox"/>
	C47	SCHWARTZ, H. et al. "Telomere Reduction in Giant Cell Tumor of Bone and with Aging"; <i>Cancer Genet Cytogenet</i> ; 1993; pp. 132-138, Vol. 71, Elsevier Science Publishing Co., Inc., New York, U.S.A.	<input type="checkbox"/>
	C48	SINGER, M. "Unusual Reverse Transcriptases", <i>Journal of Biological Chemistry</i> ; 1995, pp. 24623-23626, Vol. 270, No. 42	<input type="checkbox"/>
	C49	SMITH, J. & YEH, G. "Telomere Reduction in Endometrial Adenocarcinoma"; <i>Am. J. Obstet. Gynecol.</i> ; Dec. 1992; pp. 1883-1887, Vol. 167, No. 6	<input type="checkbox"/>

Examiner Signature		Date Considered	11/29/04
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.



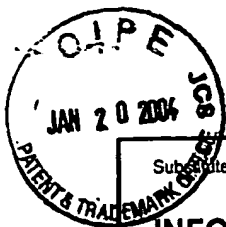
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)  Sheet 5 of 5		<b>Complete if Known</b>	
		Application Number	10/044,692
		Filing Date	January 11, 2002
		First Named Inventor	Cech
		Art Unit	
		Examiner Name	
		Attorney Docket Number	015389-002640US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
SM	C50	TAIT, J. et al. "Structure and Polymorphisms of the Human Annexin III (ANX3) Gene", <i>Genomics</i> , 1993, pp. 79-86, Vol. 18, No. 1	<input type="checkbox"/>
	C51	WINTER, G. & HARRIS, W. "Humanized Antibodies", <i>Trends Pharmacol. Sci.</i> , May 1993, pp. 139-143, Vol. 14.	<input type="checkbox"/>
	C52	WIRTH, URS et al; "Immediate-Early RNA 2.9 and Early RNA 2.6 of Bovine Herpesvirus 1 Are 3' Coterminal and Encode of Putative Zinc Finger Transactivator Protein"; <i>Journal of Virology</i> ; May 1992; pp. 2763-2772, Vol. 66, No. 5.	<input type="checkbox"/>
	C53	ZAUG, ARTHUR et al., "Method for determining RNA 3' ends and application to human telomerase RNA", <i>Nucleic Acids Research</i> , 1996, pp. 532-533, Vol. 24, No. 3.	<input type="checkbox"/>

Examiner Signature		Date Considered	11/29/04
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Substitute for form 1449A/PTO			<b>Complete if Known</b>		
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			Application Number	10/044,692	
			Filing Date	January 11, 2002	
			First Named Inventor	Thomas R. Cech	
			Art Unit	1646	
			Examiner Name	Not yet known	
Sheet	1	of	2	Attorney Docket Number	015389-002640US

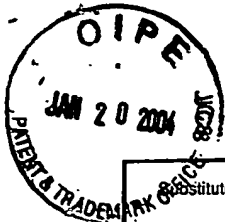
U.S. PATENT DOCUMENTS+						
Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	A1	US-6,440,735	B1	08-27-2003	Gaeta	
	A2	US-6,444,850	B1	09-03-2003	Cech et al.	
	A3	US-6,517,834	B1	02-11-2003	Weinrich et al.	
	A4	US-6,608,188	B1	08-19-2003	Tsuchiya et al.	
	A5	US-6,627,619	B2	09-30-2003	Cech et al.	
	A6	US 2002-0164786	A1	11-07-2002	Cech et al.	
	A7	US 2002-0187471	A1	12-12-2002	Cech et al.	
	A8	US 2003-0009019	A1	01-09-2003	Cech et al.	
	A9	US 2003-0032075	A1	02-13-2003	Cech et al.	
	A10	US 2003-0044953	A1	03-08-2003	Cech et al.	
	A11	US 2003-0059787	A1	03-27-2003	Cech et al.	
	A12	US 2003-0100093	A1	05-29-2003	Cech et al.	
	A13	U.S. Application No. 09/432,503			Cech et al.	
	A14	U.S. Application No. 09/721,477			Cech et al.	
	A15	U.S. Application No. 09/721,506			Cech et al.	
	A16	U.S. Application No. 09/874,584			Cech et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
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Examiner Signature	<i>[Signature]</i>	Date Considered	11/29/04
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.





<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/044,692
				Filing Date	January 11, 2002
				First Named Inventor	Thomas Cech.
				Art Unit	1646
				Examiner Name	not yet known
Sheet	2	of	2	Attorney Docket Number	015389-002640US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
SW	C1	ADAMS, MARK et al. "Initial Assessment of Human Gene Diversity and Expression Patterns Based Upon 83 Million Nucleotides of cDNA Sequence" <i>The Genome Directory: Supplement to Nature</i> 28 September 1995, 1995, pp. 3-174, Vol. 377, Issue 6547S.	
	C2		

Examiner Signature		Date Considered	11/29/04
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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Form 1449 (modified)	Docket: 018/213C	U.S.S.N.: 10/044,692
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Title: Human Telomerase Catalytic Subunit: Diagnostic and Therapeutic Methods Inventors: Thomas R. Cech, et al.	
(Use Several Sheets if Necessary)	Filing Date: January 11, 2002	Group: 1642

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 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

Examiner Initial	Ref.	Document No.	Filing Date	Publication Date	Class/ Subclass	Inventors	Title
See	EA	5,853,719	Apr 30/96	Dec 29/98	424/93.21	Nair SK et al	Methods for Treating Cancers and Pathogen Infections Using Antigen-Presenting Cells Loaded with RNA
	EB	6,306,388	May 6/98	Oct 23/01	424/93.21	Nair SK et al	Methods for Treating Cancers and Pathogen Infections Using Antigen-Presenting Cells Loaded with RNA
	EC	6,387,701	Apr 30/99	May 14/02	435/455	Nair SK et al	Method of Identifying Tumor Antigens that Elicit a T-Cell Response
	ED	6,440,735	Sep 28/00	Aug 27/02	435/372.2	Gaeta FCA	Dendritic Cell Vaccine Containing Telomerase Reverse Transcriptase for the Treatment of Cancer

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Examiner Initial	Ref.	Document No.	Publication Date	Jurisdiction	Title	Translation
See	EE	EP 1093381 B1	Aug 20/03	EP	Antigenic PeptiEes Derived from Telomerase	N/A
	EF	WO 99/63945	Dec 16/99	PCT	Vaccination Strategy to Prevent and Treat Cancers	N/A
	EG	WO 00/61766	Oct 19/00	PCT	Telomerase-Specific Cancer Vaccine	N/A
	EH	WO 00/73420	Dec 7/00	PCT	Creation of Human Tumorigenic Cells and Uses Therefor	N/A
	EI	WO 01/60391	Aug 23/01	PCT	A Universal Vaccine and Method for Treating Cancer Employing Telomerase Reverse Transcriptase	N/A
	EJ	WO 02/094213	Nov 28/02	PCT	Polyorganosiloxane Micro-Emulsion Composition and Raw Material for Cosmetics	N/A
	EK	WO 03/038047	May 8/03	PCT	Human Telomerase Reverse Transcriptase as a Class-II Restricted Tumor-Associated Antigen	N/A

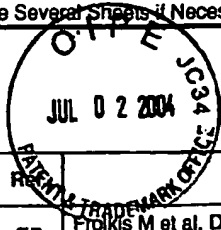
OTHER DOCUMENTS

Examiner Initial	Ref.	Author, Title, Source, Date
See	EL	Ayyoub M et al, Lack of Tumor Recognition by hTERT Peptide 540-548-Specific CD8 <sup>+</sup> T Cells from Melanoma Patients Reveals Inefficient Antigen Processing, Eur J Immunol 31:2642 (2001)
	EM	Bellone M et al, <i>In Vitro</i> Priming of Cytotoxic T Lymphocytes Against Poorly Immunogenic Epitopes by Engineered Antigen-Presenting Cells, Eur J Immunol 24:2691 (1994)
	EN	Bellone M et al, Rejection of a Nonimmunogenic Melanoma by Vaccination with Natural Melanoma Peptides on Engineered Antigen-Presenting Cells, J Immunol 158:783 (1997)
	EO	Boczkowski D et al, Dendritic Cells Pulsed with RNA are Potent Antigen-Presenting Cells in Vitro and in Vivo, J Exp Med 184:465 (1996)

Examiner	Date Considered
See	11/29/04

Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form 1449 (modified)	Docket: 018/213C	U.S.S.N.: 10/044,692
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Title: Human Telomerase Catalytic Subunit: Diagnostic and Therapeutic Methods Inventors: Thomas R. Cech, <i>et al.</i>	
(Use Several Sheets if Necessary)	Filing Date: January 11, 2002	Group: 1642



OTHER DOCUMENTS

Examiner Initial	Author, Title, Source, Date
SW	EP Proakis M et al, Dendritic Cells Reconstituted with Human Telomerase Gene Induce Potent Cytotoxic T-Cell Response Against Different Types of Tumors, Cancer Gene Therapy 10:239 (2003)
	EQ Greener M, Telomerase: The Search for a Universal Cancer Vaccine, Mol Med Today 6:257 (2000)
	ER Heiser A et al, Human Dendritic Cells Transfected with Renal Tumor RNA Stimulate Polyclonal T-Cell Responses Against Antigens Expressed by Primary and Metastatic Tumors, Cancer Res 61:3388 (2001)
	ES Heiser A et al, Induction of Polyclonal Prostate Cancer-Specific CTL Using Dendritic Cells Transfected with Amplified Tumor RNA, J Immunol 166:2953 (2001)
	ET Hernández J et al, Identification of a Human Telomerase Reverse Transcriptase Peptide of Low Affinity for HLA A2.1 that Induces Cytotoxic T Lymphocytes and Mediates Lysis of Tumor Cells, PNAS 99(19):12275 (2002)
	EU Mineev B et al, Cytotoxic T Cell Immunity Against Telomerase Reverse Transcriptase in Humans, PNAS 97(9):4796 (2000)
	EV Nair SK et al, Antigen-Presenting Cells Pulsed with Unfractionated Tumor-Derived Peptides are Potent Tumor Vaccines, Eur J Immunol 27:589 (1997)
	EW Nair SK et al, Induction of Cytotoxic T Cell Responses and Tumor Immunity Against Unrelated Tumors Using Telomerase Reverse Transcriptase RNA Transfected Dendritic Cells, Nat Med 6(8):1011 (2000)
	EX Ping L et al, Dramatic Increase of Telomerase Activity During Dendritic Cell Differentiation and Maturation, J Leukoc Biol 74:270 (2003)
✓	EY Su Z et al, Immunological and Clinical Responses in Metastatic Renal Cancer Patients Vaccinated with Tumor RNA-Transfected Dendritic Cells, Cancer Res 63:2127 (2003)

Examiner	Date Considered
<i>[Signature]</i>	11/29/04

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PTO/SB/08A (08-03)

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/044,692		
		Filing Date	January 11, 2002		
		First Named Inventor	Cech, Thomas R.		
		Art Unit	1642		
		Examiner Name	Ungar, Susan NMN		
Sheet	1	of	2	Attorney Docket Number	015389-002640US

U.S. PATENT DOCUMENTS*					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
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FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
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No References

Examiner Signature	<i>S. Ungar</i>	Date Considered	11/29/04
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/044,692		
		Filing Date	January 11, 2002		
		First Named Inventor	Cech, Thomas R.		
		Art Unit	1642		
		Examiner Name	Ungar, Susan NMN		
Sheet	2	of	2	Attorney Docket Number	015389-002640US

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SM	C1	ANDERSON, W. FRENCH "Human Gene Therapy" <i>Nature</i> , April 30, 1998, pp. 25-30, Vol. 392, Supp.	
	C2	CAMPBELL, KEITH & WILMUT, IAN "Totipotency or Multipotentiality of Cultured Cells: Applications and Progress" <i>Theriogenology</i> , January 1997, pp. 63-72, Vol. 47, Issue 1, Elsevier Science Inc.	
	C3	GEARHART, JOHN "New Potential for Human Embryonic Stem Cells" <i>Science</i> , November 6, 1998; pp. 1061-1062, Vol. 282, Issue 5391.	
	C4	HORNSBY, PJ et al. "Adrenocortical Cells Immortalized by Telomerase: Potential Use for Ex Vivo Gene Therapy" <i>Journal of Anti-Aging Medicine</i> , 2000, pp. 411-417, Vol. 3, No. 4.	
	C5	OSTLER ELIZABETH L. et al. "Telomerase and the Cellular Lifespan: Implications for the Aging Process" <i>J. of Pediatric Endocrinology &amp; Metabolism</i> , 2000, pp. 1467-1476, Vol. 13, Supplement 6, Freund Publishing House Ltd. London.	
	C6	THOMSON, JAMES A. et al. "Embryonic Stem Cell Lines Derived from Human Blastocysts" <i>Science</i> , November 6, 1998; pp. 1145-1147, Vol. 282, Issue 5391.	
	C7		

Examiner Signature		Date Considered	11/29/04
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9/21/04

Form 1449 (modified)	Docket: 015389-002640US; 018/213C U.S.S.N.: 10/044,692
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use Several Sheets if Necessary)	Title: Nucleic Acid Vaccine for Eliciting an Immune Response Against Telomerase Reverse Transcriptase Inventors: Thomas R. Cech, et al. Filing Date: January 11, 2002 Group: 1642

## U.S. PATENT DOCUMENTS

Examiner Initial	Ref.	Document No.	Filing Date	Publication Date	Class/ Subclass	Inventors	Title
none							

## FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Examiner Initial	Ref.	Document No.	Publication Date	Jurisdiction	Title	Translation
none						

## OTHER DOCUMENTS

Examiner Initial	Ref.	Author, Title, Source, Date
CM	D1	Nair SK et al, Induction of Cytotoxic T Cell Responses and Tumor Immunity Against Unrelated Tumors Using Telomerase Reverse Transcriptase RNA Transfected Dendritic Cells, Nat Med 6(8):1011 (2000)

Examiner	Date Considered
A. Guen	11/29/04

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PTO-1449 — Page 1